

**CLAIMS:**

1. A private enterprise network system for secure, nonencrypted data transmission between a first computer and a second computer of an entity comprising:

5 a first user equipment connected to the first computer, the first user equipment being adapted to receive data transmission from the first computer and to add an entity address to the data transmission that identifies the second computer;

10 a second user equipment connected to the second computer, the second user equipment being adapted to receive data transmission with the entity address and direct the data transmission to the second computer;

a shared, private backbone in functional communication with the first user equipment and the second user equipment and adapted to be in functional communication with another entity's user equipment;

15 a translator system in functional communication with the private backbone and being adapted to receive the data transmission with the entity address via the shared, private backbone and translate the entity address into a private address;

20 a switch and router array system comprising a plurality of entity dedicated channels, being in functional communication with the translator system, and being adapted to receive the private address data transmission from the translator, direct the private address data transmission through an appropriate entity dedicated channel based on the private address, and return the private address data transmission to the translator system, wherein the translator system translates the private address of the data transmission into the entity

25

**address and directs the data transmission to the shared, private backbone for transmission to the second user equipment; and**

**an xDSL system between the first user equipment and the shared, private backbone or the second user equipment and the shared, private backbone.**

**2. The private enterprise network system of claim 1, wherein:**

**the first user equipment comprises a router, bridge, or modem;**

**and**

**the second user equipment comprises a router, bridge, or**

**modem.**

**3. The private enterprise network system of claim 1, wherein:**

**the switch and router array system comprises a universal access concentrator.**

**4. The private enterprise network system of claim 1, wherein:**

**the switch and router array system is enabled to handle media translation, security policies, circuit aggregation, or Intranet routing.**

**5. The private enterprise network system of claim 1, wherein:**

**the translator system and the switch and router system is combined into a single system.**

**6. The private enterprise network system of claim 1, further comprising:**

**another xDSL system, wherein the xDSL system is between the**

first user equipment and the shared, private backbone and the another xDSL system is between the second user equipment and the shared, private backbone.

7. The private enterprise network system of claim 1, wherein:  
the entity has a plurality of computers and user equipment.

8. The private enterprise network system of claim 1, wherein:  
the switch and router array system is enabled to restrict transmission of all data between the first computer and the second computer or previously identified data between the first and second computer.

9. The private enterprise network system of claim 1, further comprising:  
a core asynchronous transfer mode switch between the shared, private backbone and the translator system.

10. The private enterprise network system of claim 1, further comprising:  
a network address translation and proxy system in functional communication with the shared, private backbone and with a public global computer system.

11. The private enterprise network system of claim 10, wherein:  
the switch and router array system is enabled to restrict transmission of all data from the public global computer network or

restricted data requested by a user of the first computer from the public  
global computer network.

12. The private enterprise network system of claim 11, wherein another  
entity is in functional with the shared, private backbone.

13. A private enterprise network system installation process comprising  
the steps of:

identifying a first computer and second computer of an entity  
desired to be connected such that secure, nonencrypted transmission of  
data occurs between a first computer and a second computer;

connecting first and second user equipment to the first and  
second computers, respectively, the first user equipment being adaptable to  
receive data transmission from the first computer and to add an entity address to  
the data transmission that identifies the second computer, and the second user  
equipment connected to the second computer, the second user equipment being  
adaptable to receive data transmission with the entity address and direct the data  
transmission to the second computer;

connecting the first and second user equipment to a shared, private  
backbone that is capable of being in functional communication with another  
entity's user equipment and is not publically accessible, wherein at least one of  
the first and second user equipment is connected to the shared, private  
backbone via an xDSL system;

connecting a translator system to the private backbone, the  
translator system being adaptable to receive the data transmission with the entity  
address via the shared, private backbone and translate the entity address into a

**private address; and**

**connecting a switch and router array system comprising a plurality of entity dedicated channels to the translator system, wherein the switch and router system is adaptable to receive the private address data transmission from the translator, direct the private address data transmission through an appropriate entity dedicated channel based on the private address, and return the private address data transmission to the translator system, wherein the translator system translates the private address of the data transmission into the entity address and directs the data transmission to the shared, private backbone for transmission to the second user equipment.**

**14. A private enterprise system modification process comprising the steps of:**

**providing the private enterprise network system of claim 7,  
changing the number of the plurality of the computers in the private enterprise system.**